

### **AMENDMENTS TO THE SPECIFICATION**

**Please amend paragraph [0003] of the published specification as follows.**

On the other hand, it has been previously reported that a photoreactive compound is can be used for ~~the~~ fixing ~~[[of]]~~ DNA molecules on a solid-phase support (Patent reference No. 1). It is considered that~~[[,]]~~ by applying this fixing technique to the production process for a low-molecular microarray, the problems inherent to the conventional low-molecular microarray production processes as stated above could be overcome. However, to date, there has been no report about the application of the above-described DNA-fixing process to the fixing of low-molecular compounds.

**Please amend paragraph [0004] of the published specification as follows.**

As stated above, in ~~the~~ conventional processes for production of low-molecular microarrays, the low-molecular compounds which can be fixed is limited to a class of molecules having a specific functional group and the functional group-containing part of the molecular structure, which is utilized for the binding to a support, is of no use in experiments of binding to proteins or the like on arrays.

**Please amend paragraph [0071] of the published specification as follows.**

FIG. 3 shows images of a low-molecular compound-fixed slide observed on a fluorescent scanner after irradiating with light having ~~[[a]]~~ wavelengths of 488 nm (Fig. 3C), 532 nm (Fig 3A) and 635 nm (Fig. 3B), respectively.

**Please amend paragraph [0074] of the published specification as follows.**

The resulting Compound C (27.6 mg, 59.9  $\mu$ mol) was dissolved in dichloromethane (1 mL) and trifluoroacetic acid (150  $\mu$ L) and stirred at room temperature for 70 minutes. The solvent was evaporated under reduced pressure and the residue was purified by reverse phase column chromatography (methanol:water=4:1, methanol) to yield 21.1 mg (44.5  $\mu$ mol, yield: 74%) of

N-[2-[2-(2-aminoethoxy)-ethoxy]-ethyl]-4-(3-trifluoromethyl-3H-diazirin-3-yl)-benzamide trifluoroacetate (Compound D).

Compound D: colorless oil,  $^1\text{H-NMR}$  (400 MHz,  $\text{CD}_3\text{OD}$ ) [ $\square$ ]  $\delta$  7.90 (2H, brd,  $J=8.6$  Hz), 7.34 (2H, d,  $J=8.6$  Hz), 3.62-3.71 (8H, m), 3.58 (2H, t,  $J=4.8$  Hz), 3.07 (2H, t,  $J=5.6$  Hz).

**Please amend paragraph [0078] of the published specification as follows.**

On the photophilic atomic group-introduced slide, 0.2  $\mu\text{L}$  of each of solutions of low-molecular compounds (biotin, rhodamine B, digoxin) in DMSO, which had been prepared in concentrations of 100, 10, 1, 0.1 and 0.01 mM, was spotted. The slide was dried in an incubator at 35  $^{\circ}\text{C}$   $\square^{\circ}\text{C}$ . for 3 hours and further dried with a vacuum pump for 20 hours. The slide was irradiated with ultraviolet ray having a wavelength of 365 nm for 30 minutes, and then excess low-molecular compound which failed to be fixed to the slide was washed out with ethanol. The slide was then washed while shaking by immersing in ethanol, DMF, THF, ethanol and deionized water in this order (for 1 hour each). Thus, a slide on which low molecules were fixed was produced.

**Please amend paragraph [0080] of the published specification as follows.**

Onto the low molecule-fixed slide, a protein solution (162  $\mu\text{g/mL}$  anti-digoxin monoclonal antibody clone DI-22-FITC conjugate, 3.7  $\mu\text{g/mL}$  streptavidin-Alexa ~~Fluor~~ **Fluor** 633 conjugate, 1% (w/v) skimmed milk, 77 mM NaCl, 0.05% (w/v) ~~Tween-20~~ **TWEEN<sup>TM</sup> 20** **(polysorbate 20)**, 50 mM Tris-HCl, pH 7.5) was added at a rate of 0.18 mL/mm<sup>2</sup>, and then treated at room temperature for 1 hour. The slide was washed while shaking three times with a wash buffer (77 mM NaCl, 0.05% (w/v) ~~Tween-20~~ **TWEEN<sup>TM</sup> 20** **(polysorbate 20)**, 50 mM Tris-HCl, pH 7.5), rinsed with deionized water, and dehydrated in a dehydration centrifuge (400xg) for 1 minute. The slide was exited with light of 488, 532 and 635 nm, respectively, and the emitted fluorescent light was observed on a fluorescent slide scanner. The results are shown in FIG. 3. In FIG. 3, the images in the left column are the slides observed on the fluorescent scanner before the slides were immersed in a protein solution, and the images in the right column

are the slides observed on the fluorescent scanner after the slides were treated with a protein solution.